Great Lakes
Chemical Corporation

ORIGINAL

8EHQ-0696-13677

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June 24, 1996

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Document Control Office (7404)
Office of Toxic Substances
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

RE: TSCA Section 8(e) Notification on Acetylfuran
(When responding, please refer to JAB-96-141)

ATTN: TSCA Section 8(e) Coordinator

Great Lakes Chemical Corporation is submitting a Section 8(e) substantial risk notification concerning an acute oral toxicity study in rats with acetylfuran; CAS Registry Number 1192-62-7. The following information was received for this methyl-heteocyclic ketone on June 18, 1996 via a final report from our overseas operation in the United Kingdom.

The test article was administered orally via gavage as a solution in arachis oil BP at dose levels of 10, 22, and 50 mg/kg body weight. Each of the three dose groups consisted of five Sprague-Dawley CD male rats. An additional group of five female rats was dosed at 10 mg/kg body weight to demonstrate that there was not a marked difference in toxicity between sexes with this test material. The animals were observed for mortality and overt signs of toxicity at 0.5, 1, 2, and 4 hours post-test material administration and subsequently once daily for 14 days. Individual body weights were recorded on study days 0, 7, and 14 or at time of death. Surviving animals were terminated on study day 14 and subjected to necropsy. All animals that expired on study were also subjected to a gross pathological examination.

All the male animals treated at 50 mg/kg body weight were found dead within one to three days following dosing. Systemic signs of toxicity noted in females treated at 10 mg/kg body weight and males treated at 22 and 50 mg/kg body weight were hunched posture, lethargy, and decreased respiratory rate. Additional pharmacotoxic signs in the 50 mg/kg body weight males were ataxia and labored/noisy respirations. Isolated incidents of systemic toxicity noted in one 50 mg/kg body weight male were ptosis, gasping respirations, and red/brown stains around the eyes and nose. Surviving animals appeared normal throughout the study or recovered within one to two days following dosing.

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Surviving animals exhibited normal body weight gains during the study. Macroscopic abnormalities noted at necropsy of males (50 mg/kg body weight) that died during the study included haemorrhagic lungs, dark liver or patchy pallor of the liver, dark kidneys, gaseous distention of the stomach, haemorrhage of the gastric mucosa, and sloughing of the non-glandular epithelium of the stomach.

Under the conditions of the study, the acute oral median lethal dose (LD_{50}) for male rats was calculated to be 33 mg/kg body weight. Females were considered not to be markedly more sensitive to the test material than male rats.

If you have any questions, please feel free to contact me at (317) 497-6223.

Sincerely,

John A. Biesemeier
Regulatory Toxicologist
Regulatory Affairs

JAB/clw